

**TACTICAL COMBAT FORCES OF
THE UNITED STATES AIR FORCE:
ISSUES AND ALTERNATIVES**

Staff Working Paper
(Preliminary Analysis)

May 1984

The Congress of the United States
Congressional Budget Office

NOTES

Aircraft included in this analysis are only those associated with the Air Force tactical forces. Aircraft that support the strategic interceptor forces of the United States were deleted.

All out-year dollars in this report assume the Administration's inflation assumptions.

All years are fiscal years unless otherwise indicated.

PREFACE

In the past few years, the Congress has restrained spending on tactical aircraft in the Air Force. These funding decisions, and similar ones that could be debated in the future, will have important effects on the Air Force's ability to expand the size of its tactical air forces while also modernizing those forces with new aircraft and retiring older planes. This analysis by the Congressional Budget Office (CBO) presents the effects of the Administration's current tactical aircraft plans on costs and modernization. It also presents alternatives to the Administration's plans. The results in this study, which was requested by the Defense Subcommittee of the Senate Committee on Appropriations, are preliminary and will be expanded in a subsequent publication. In keeping with CBO's mandate to provide objective analysis, the study contains no recommendations.

The study was prepared by Lane Pierrot of CBO's National Security Division, under the general supervision of Robert F. Hale. John J. Hamre (formerly of CBO) provided assistance and supervision during the analysis. William P. Myers and Patrick L. Haar, both of CBO's Budget Analysis Division, contributed extensive cost analyses. The author wishes to thank T. Keith Glennan III and Jonathan W. Woodbury, of CBO's National Security Division, and Bert H. Cooper, of the Congressional Research Service, for their assistance. (The assistance of external participants implies no responsibility for the final product, which rests solely with CBO.) Patricia H. Johnston edited the manuscript, assisted by Nancy H. Brooks, and G. William Darr prepared it for publication.

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CHAPTER I. SUMMARY AND INTRODUCTION

SUMMARY

The tactical air forces are composed of aircraft, supporting equipment, and personnel. In war they would counter the enemy's tactical air forces and deliver bombs and missiles against ground targets.

Direct costs to operate, support, and procure selected aircraft for the Air Force tactical forces amounted to \$12 billion in fiscal year 1984, or about 14 percent of the overall Air Force budget. Indirect costs associated with these aircraft, though difficult to estimate, would add substantially to the total. These funds support 36 tactical air "wings," made up of six kinds of fighters and short-range bombers. 1/ (A typical wing consists of 72 operational aircraft plus backups.) The funds also are used to procure two types of aircraft, F-15s and F-16s, and assorted missiles and equipment.

The Air Force intends to expand the current force structure to 40 wings by fiscal year 1989 and plans to increase annual procurement of the F-15s and F-16s from a total of 180 aircraft in 1984 to 312 aircraft per year by fiscal year 1988. 2/ The Congressional Budget Office (CBO) has analyzed these plans for consistency within the Administration's projected growth in the defense budget and has also considered the impact on those plans of less optimistic growth levels. This is a preliminary report of that analysis.

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1. Typically aircraft that have the mission of bombing surface targets are called "attack" aircraft rather than bombers as has been used to simplify discussion in the text. The reason for this designation is that the aircraft also carry air-to-surface missiles and precision-guided munitions in addition to bombs.
 2. In April 1984, the Air Force released a plan that would reduce F-15 procurement below the levels submitted in the February 1984 budget while retaining the level of F-16s. In May 1984, the Department of Defense released a budget revision that would reduce F-16 quantities in the out years, cut F-15 procurement in fiscal year 1985 (with no information on out-year F-15 procurement), and defer the 40-wing goal to fiscal year 1990. Appendix A discusses the effects of these changes.

The Air Force has three key goals for tactical air forces that planned new procurements are expected to help meet:

- o Expansion of the force from its current level of 36 wings to 40;
- o Retirement of older aircraft after 20 years of service; and
- o Modernization of the fleet with newer, more capable aircraft.

The CBO finds that these three goals can be met if the Congress approves new procurements at levels proposed in the February 1984 budget. (An addendum in Appendix A discusses the effects of subsequent revisions to the February 1984 request.) These procurements would, however, require real growth in the tactical air force budget averaging over 6 percent annually over the next five years with substantially higher growth in the near term. Lower levels of growth--such as the 5 percent real annual increases in budget authority approved by the Congress last year for the defense budget as a whole--would pose a problem if the tactical air forces' share of that spending remains constant at today's levels. In this case, the Air Force would find it difficult to pay the increased operating and support costs for the 40-wing force while also buying the aircraft necessary to meet the force requirements.

CBO examined several alternatives consistent with a 5 percent real growth budget. The analysis suggests that, if the goal of expansion to 40 wings is to be met, both the other goals will be sacrificed to a substantial degree. On the other hand, if the Administration decided to keep today's 36 wings, goals for retirement and modernization could largely be met with only 5 percent annual real growth in funds for tactical air forces. The Congress may wish to make these difficult choices now because, as an Air Force study contended last year, having plans that are roughly consistent with available funding leads to stable, more efficient purchases of aircraft. 3/

This analysis focused on funding problems over the next five years, but introduction of the new Advanced Tactical Fighter (ATF) in the 1990s could lead to even more severe problems in the next decade. Analysis suggests that the Air Force will have to continue large purchases of tactical aircraft into the 1990s, especially if it is not able to buy the large numbers of aircraft that it plans to purchase in the late 1980s. Yet the ATF is being designed to meet a wide variety of requirements; this could make it

3. Affordable Acquisition Approach, a study prepared at the request of Air Force Systems Command, released in January 1983.

substantially more costly than the current generation of aircraft. If so, it may be extremely difficult to maintain a force of adequate size and age. Since many key decisions that will influence the cost of the ATF will be made in the next few years, the Congress may wish to ensure that the cost is an important design feature of the new fighter.

TYPES OF AIRCRAFT

Six types of aircraft, totaling approximately 4,000 planes in 1984, make up the aircraft inventory from which tactical combat forces are drawn (see Table 1). Three of these aircraft--the F-111, A-10, and A-7--are no longer in production and are not the focus of this report. The F-111 is capable of carrying large payloads relatively long ranges for the deep interdiction mission of bombing high-value targets far behind enemy lines. The other two planes have shorter ranges and are intended for close air support, providing air strikes at the request of ground forces, and battlefield bombing.

The other three aircraft--the F-15, F-16, and F-4--are the key systems considered in detail in this paper. The F-15 is the premier air superiority aircraft, intended to control the airspace above the ground forces by attacking enemy fighters and bombers. The F-16 is a "swing-role" aircraft, performing both air-to-air and air-to-ground missions. Its range is much shorter than the F-111's, however, and so it is unable to perform the deep interdiction mission in its air-to-ground role. The F-16 is a lower-cost fighter than the F-15 and was developed in the mid-1970s when the Air Force determined that the F-15 was too expensive to procure in quantity. The F-4 is an older, swing-role fighter procured in quantity in the 1960s and early 1970s.

In 1981 the Air Force announced plans to procure a long-range, ground-attack aircraft to supplement the aging and small fleet of F-111s in the deep interdiction mission. ^{4/} At that point, McDonnell Douglas Corporation had announced development of an F-15 "strike eagle" aircraft (eventually designated the F-15E), a modified F-15 with improved range and an air-to-ground attack capability. Shortly afterward General Dynamics Corporation put forward an enhanced version of the F-16, known as the F-16XL, and eventually a two-seat version of the XL named the F-16E. At the Congress' direction, the Air Force conducted a competition between the

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4. Hearing testimony before the Senate Armed Services Committee, Tactical Warfare Subcommittee, Department of Defense Authorization for Appropriations for Fiscal Year 1982, Part 3, pg. 1273.

TABLE 1. TACTICAL AIR FORCE FIGHTER/ATTACK AIRCRAFT

Aircraft	First Entered Force in Bulk <u>b/</u>	Approximate Quantity in Inventory in 1984 <u>c/</u>	Primary Mission(s) a/				Procurement Unit Cost <u>d/</u>
			Air-to-Surface			Air-to-Air	
			Close Air Support	Battlefield Interdiction	Deep Interdiction	Air Superiority	
A-7	Late 1960s	380	X	X			--
A-10	Late 1970s	690	X				--

F-4	Mid-1960s	1,180	X	X		X	--
F-111	Late 1960s	280			X		--
F-15	Mid-1970s	650				X	41
F-16	Early 1980s	740	X	X		X	23
F-15E	Late 1980s	0		X	X	X	--
F-16F	Early 1990s	0	X	X		X	--
Advanced Tactical Fighter	Mid-1990s	0				X	--

SOURCE:

- a. Air Force data.
- b. Jane's *All the World's Aircraft* (various years).
- c. CBO estimate from Air Force data.
- d. Procurement Programs (P-1) Annex to Department of Defense Budget for fiscal year 1985.

two aircraft. Early this year the Air Force announced that the F-15E won the competition, primarily because of its longer range. The Air Force also announced that it will continue to evaluate the possibility of procuring an enhanced F-16 which may incorporate some of the advances gained in development of the F-16XL/E which may be designated the F-16F.

These six aircraft--and their derivatives--will form the Air Force tactical aircraft inventory through the mid-1990s. By 1995 the Air Force expects to begin deliveries of a totally new aircraft--currently called the Advanced Tactical Fighter. Because this plane is in advance concept design stages, no detailed plans permit discussion of its capabilities or costs. The Air Force, however, would like it to have enhanced avionics, a supersonic cruise capability, stealth characteristics, a short take-off and landing capability, high reliability and maintainability, and longer flight ranges. Because these capabilities all exceed those found in the current premier fighter, the F-15, it is realistic to assume that it would be a very expensive aircraft.

PLAN OF THE STUDY

Chapter II discusses the Administration's plans for these tactical air forces. The plans should allow the Air Force to meet its planned force increases. But the Administration's plans would require that the tactical air force budget grow in real terms at substantially more than 5 percent a year from fiscal years 1985 to 1989. Thus Chapter III considers alternatives to the Administration's plans in light of less optimistic projections of available budget resources. Finally, Chapter IV notes some long-term issues that the Congress will want to consider as it reviews Air Force plans for the Advanced Tactical Fighter.

CHAPTER II. ADMINISTRATION PLANS FOR TACTICAL AIR FORCES

During this decade, the Air Force plans to buy new F-15s and F-16s and retire older F-4s while also altering its requirements. Together these factors will determine whether the Air Force will have enough aircraft available to meet its projected requirements.

AVAILABLE AIRCRAFT

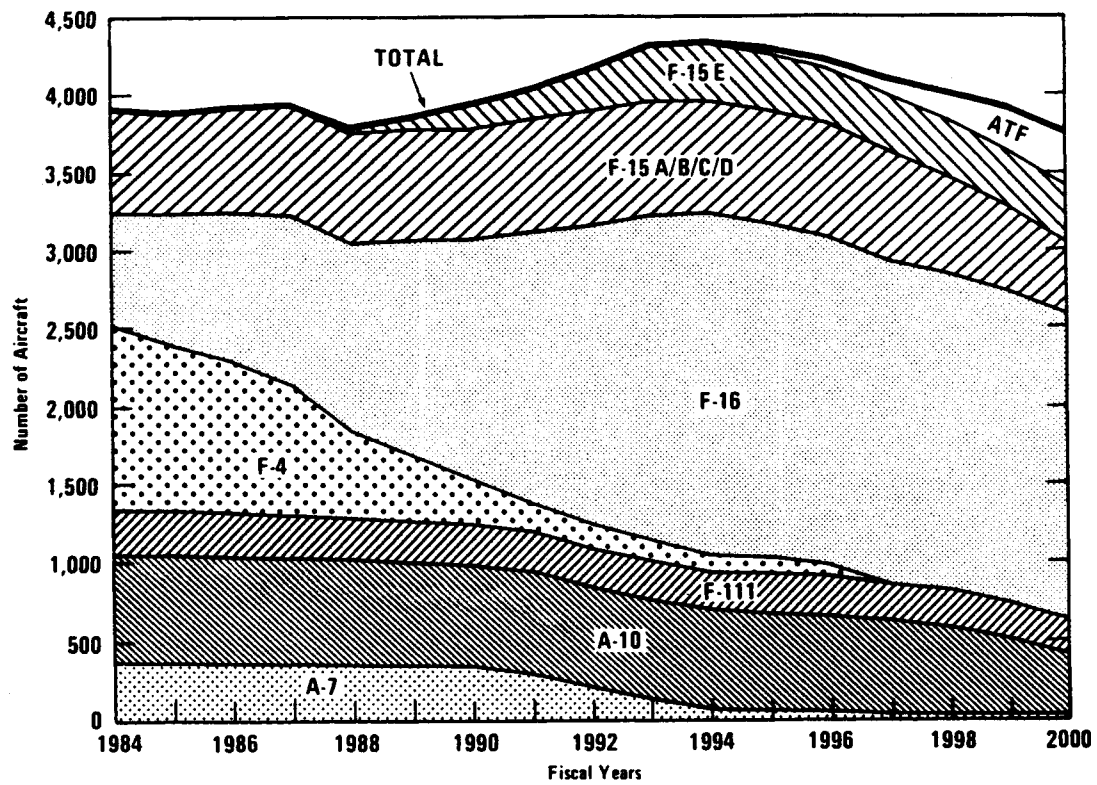
Inventory of Aircraft

Over the next five years, the Air Force proposes to have about 4,000 tactical aircraft in its inventory (see Figure 1). The figure shows the impact on the Air Force inventory of the retirement of aging aircraft and their replacement by new F-15s and F-16s. The large fleet of F-4s, bought primarily during the Vietnam War years, would be retired in quantity during the 1980s. These numerous retirements would hold inventory levels fairly constant--even decreasing the level slightly in fiscal years 1987 and 1988--although deliveries of newly procured F-15s and F-16s would steadily increase during this period. By the end of the 1980s and in the early 1990s, inventory levels would begin to rise because F-4 retirements would be largely complete. Retirement of F-4s and their replacement also mean that, by 1991, more than half of the inventory would be composed of F-15s and F-16s.

Three key assumptions underlie these findings. First, the projection assumes that the Administration carries out its plan--expressed in the February 1984 budget--to buy 1,386 F-15s and F-16s in fiscal years 1985-1989. (Table 2 shows details of the plan; the addendum in Appendix A discusses changes to the February 1984 plan.) Second, most aircraft are assumed to be retired at 20 years of age--which the Air Force has indicated is desirable. ^{1/} Third, because this paper focuses on tactical aircraft issues, this projection and the remainder of data in the paper exclude aircraft destined for strategic air defense--that is, defense of the United States against attacks by Soviet strategic bombers. Thus, procurements of F-15 and F-16

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1. As the Air Force plans, the F-111 aircraft are retained in the force structure through this century, retiring them at 30 years of age.

Figure 1.
Cumulative Tactical Aircraft Inventory



SOURCE: CBO estimates from Air Force data.

TABLE 2. ADMINISTRATION PLAN FOR F-15 AND F-16
PROCUREMENT, AS OF FEBRUARY 1984 a/
(By fiscal year, in number of planes)

Plane	1985	1986	1987	1988	1989	Total 1985- 1989
F-15	48	56	24	24	24	176
F-15E	0	4	48	72	72	196
F-16	<u>150</u>	<u>216</u>	<u>216</u>	<u>216</u>	<u>216</u>	<u>1,014</u>
Total	198	276	288	312	312	1,386

SOURCE: Budget of the United States Government for Fiscal Year 1985
(February 1984).

a. February 1984 plans call for a force goal of 40 wings by 1989.

aircraft intended to maintain and modernize the 15 squadrons of strategic air defense interceptors were deleted from the inventories used in this report. Only those F-15s and F-16s that are to be used tactically have been included.

Figure 1 also shows a modest decline in numbers of aircraft in the late 1990s. This long-term decline results from the assumption that the Air Force carries out its currently announced plans to complete procurement of F-15s and F-16s by 1992. Because of the probable high cost of the new Advanced Tactical Fighters (ATFs), CBO has assumed--in the absence of any firm Administration plans--that only small quantities of the ATF will be bought in the 1990s, similar to early purchases of F-15s, that is starting with 30 planes in the 1994 budget and increasing to 96 by the mid-1990s.

Projections of future inventories depend not only on planned procurement and retirement but also detailed assumptions, for example numbers of peacetime losses of aircraft because of crashes or ground damage. Appendix B describes the method used to make these projections.

Age of the Inventory

Along with numbers, age is an important attribute of the fleet. The Air Force has a goal of keeping the average age of its fleet at 10 years--which implies retirement of tactical aircraft after 20 years of service. If aircraft were equally distributed across the age spectrum, the Air Force estimates that it would have to procure about six aircraft per wing per year to maintain an average age of 10 years. 2/

Annual procurement needs are likely to be higher than 6 per wing in the next few years, however, because of the age composition of the Air Force inventory as of 1984 (see Figure 2). 3/ Almost half that inventory is currently ten years of age or older. This part of the inventory was primarily procured in the 1960s during the Vietnam War. These aircraft would have to be replaced entirely by the mid 1990s, and in large quantity by the late 1980s, if the Air Force were to hold firmly to its goal of retirement after twenty years of service.

Figure 2 also shows a pattern in Air Force tactical combat aircraft procurement over the last 20 years. 4/ As can be seen here, after the fairly large procurement quantities during the Vietnam years, there was a de-

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2. The Air Force uses the following formula to derive these numbers:

$$\frac{(\# \text{Wings}) \times (120 \text{ aircraft})}{(2) \times (\text{Average Age})}$$

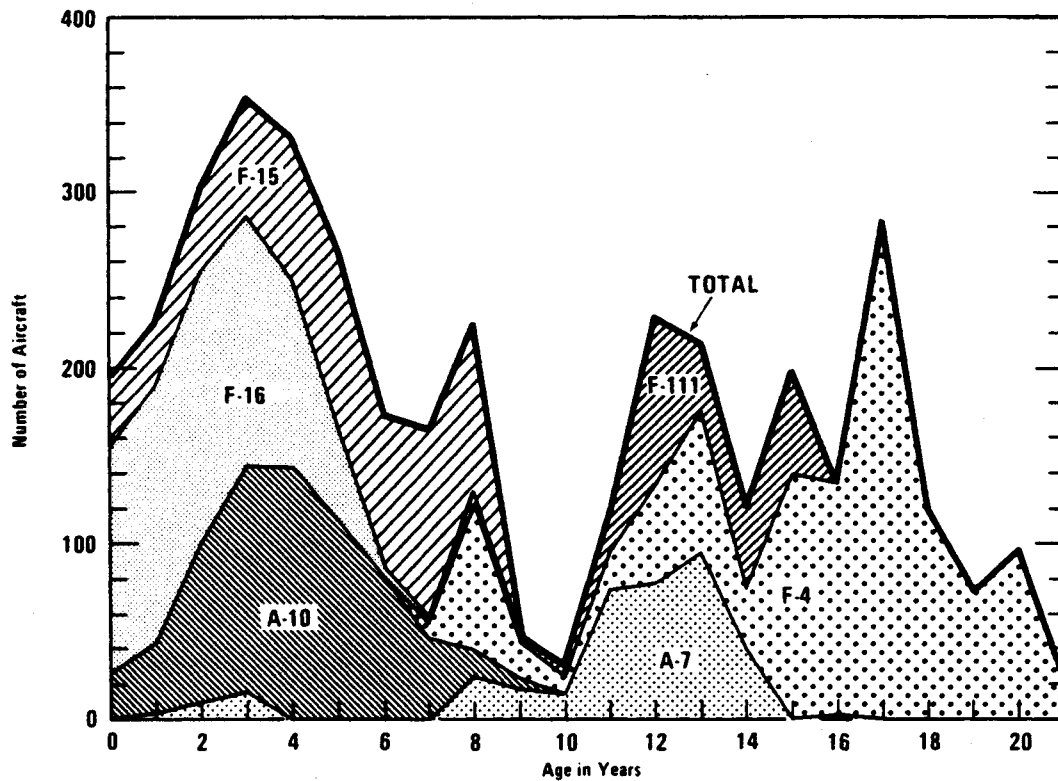
120 aircraft is based on:

Combat	72
Back-up	28
Total	<u>100</u>

20 years of losses at 1 percent per year	<u>20</u>
	120

3. Some specific assumptions influence results on this figure. F-4s over 20 at the end of 1984 (about 10 aircraft) were excluded. Also the F-4 aircraft currently in five air defense interceptor squadrons were deleted. As those aircraft are generally older F-4s, their deletion reduces the F-4 aircraft that are 17 through 20 years old.
4. The figure cannot provide an exact guide to historical deliveries as the aircraft quantities may have been reduced by attrition (peacetime losses).

Figure 2.
Cumulative Tactical Aircraft Inventory, by Age as of 1984



SOURCE: CBO estimates from Air Force data.

crease in procurement reflected in the relatively small numbers of aircraft that are nine, ten, and eleven years old. This decrease reflected both reduced defense spending and a transition from F-4 to F-15 procurement and from A-7 to A-10 procurement. As the F-15 turned out to be a relatively expensive aircraft, it was not until F-16 deliveries began that the next large wedge of aircraft appeared in the inventory. At the same time that the F-16s were reaching quantity procurement, the A-10s were at a mature production rate. Thus the fiscal years 1978, 1979, 1980 were bumper ones for Air Force tactical aircraft procurement; this can be seen in the peak quantities of aircraft that are two, three, and four years old. For purposes of comparison, the Administration's procurement program would stabilize aircraft procurement by 1988 at levels approaching those of the late 1970s.

REQUIREMENTS FOR AIRCRAFT

The Air Force plans to increase its current force requirements from 36 wing "equivalents" to 40 wing "equivalents" by 1989. A notional tactical air wing contains 72 combat aircraft in three squadrons of 24 aircraft each. Because the actual number of combat aircraft can vary among operational squadrons, the Air Force uses a wing equivalent to describe force size. This is derived by dividing the total number of combat aircraft by 72. A wing in this paper will refer to a wing equivalent.

In a joint planning process, the Air Force and the other services set their goals for forces by assessing the capability of the U.S. forces versus the threat the United States and her allies would face in a major war. All of the services have goals that are much higher than current force levels. The highest goals are associated with minimum risk; these are the forces that the services feel they would need in order to have clear certainty of winning a major war. By accepting more risk, the services reduce requirements to levels more consistent with fiscal constraints. The plan for 40 wings is presumably consistent with the fiscal constraints that the Air Force has been told to meet.

Expanding to 40 wings would require about 4,000 aircraft by 1989, or roughly 100 aircraft per wing. Each wing has 72 combat or primary authorized aircraft (PAA). But, according to the Air Force, an additional 28 aircraft per wing are needed as backups. Of the 28 additional aircraft, 18 are trainers (TF) that are needed to help pilots practice. The remaining ten aircraft are a combination of "pipeline" and support aircraft for research and development (back-up aircraft authorizations--BAA). Pipeline aircraft are the additional aircraft needed to keep combat levels constant while aircraft undergo modification and repair. Support aircraft for research and development are those aircraft that are used to test new systems--both aircraft systems and weapons.

There is some controversy over whether all 28 of these additional aircraft are needed. The General Accounting Office (GAO) has argued that it would be possible to reduce pipeline requirements if better maintenance practices were put into place; GAO also contends that higher use of trainers could reduce training requirements. ^{5/} Moreover, there is some question as to whether the Air Force would need as many training aircraft for reserve wings, which form about a third of the force, as for active wings. Reserve wings are manned by part-time personnel who train mostly on weekends; these wings are generally have experienced pilots who may not need as much refresher training as the inexperienced pilots entering active duty.

For the purposes of this analysis, however, official Air Force figures were used, and these call for 100 aircraft per wing including 72 combat and 28 additional aircraft. It should be kept in mind that different assumptions about these back-up aircraft would reduce the requirements.

REQUIREMENTS VERSUS AVAILABLE AIRCRAFT

CBO's projections suggest that, if Administration procurement plans are carried out, the Air Force would have sufficient aircraft to expand to 40 wings (see Figure 3). There would be a slight shortfall in 1988, 1989, and 1990. But, if older F-4 aircraft were retired just one year later than their planned retirement after 20 years of service, requirements would be met exactly.

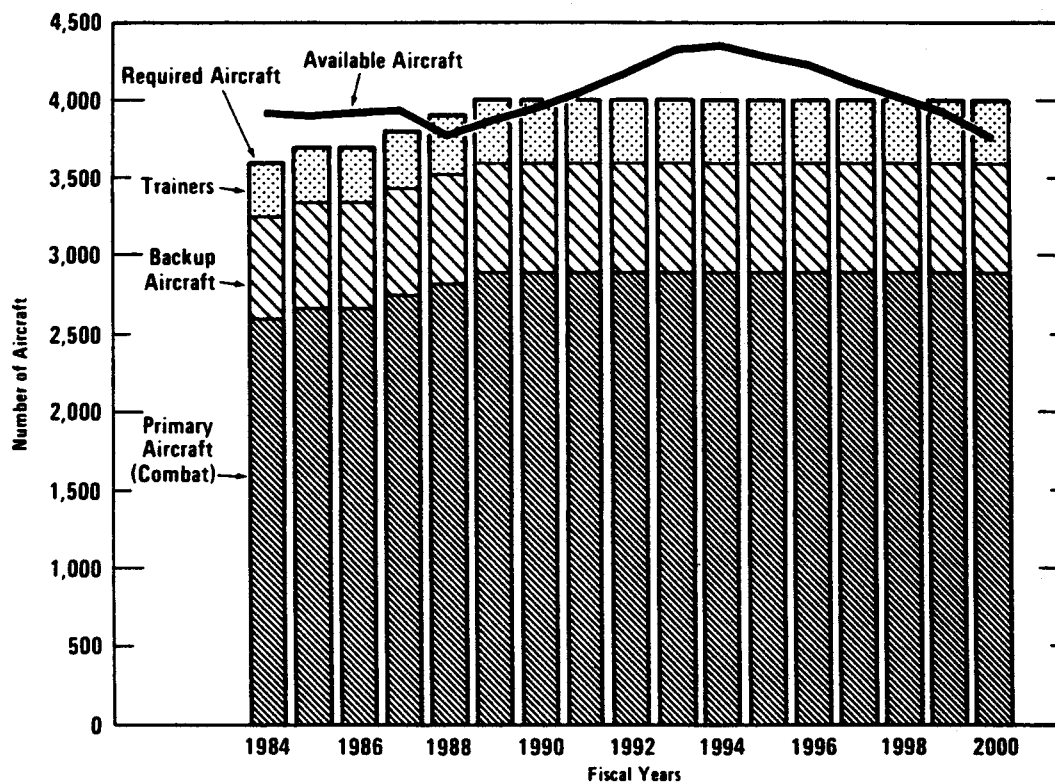
In the late 1990s, however, inventory levels would begin to slip below requirements. This is related to procurement of the Advanced Tactical Fighter, which is discussed in Chapter IV.

AFFORDABILITY OF AIR FORCE PLANS

The planned procurements that would allow the Air Force to meet its requirements may not, however, be affordable in the next five years. Unfortunately, it is difficult to answer the question about affordability for two

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5. See Statement of Werner Grosshans, General Accounting Office, Planning Director, National Security and International Affairs Division, before the Subcommittee on Legislation and National Security, House Committee on Government Operations (June 2, 1983); and Report to the Congress by the Comptroller General of the United States, The Congress Should Require Better Justifications of Aircraft for Noncombat Missions (July 22, 1980).

Figure 3.
Tactical Aircraft Requirements Versus Available Aircraft



SOURCE: Required Aircraft—CBO estimates from Administration Plan, Annual Report to Congress (1984); Available Aircraft—CBO estimates from Air Force data.

reasons. First, it is not clear how much money the Congress will appropriate for the Department of Defense (DoD) over the next five years and how much the Congress will allocate to tactical air forces. The Congress makes these detailed decisions about the overall defense budget and its allocation to specific programs only for the current budget year, not for five years. Second, DoD's long-term plans, which are highly detailed, cannot be used as a guide. Except for the up-coming budget year, the Administration views these plans as internal working documents, and they are not routinely supplied to the Congress. The Congress does receive long-term plans about the numbers of aircraft that will be purchased and other selected information, but it does not receive details about operating costs and other factors required to estimate the total funds that would be needed to support Administration plans for tactical air forces.

Nonetheless, CBO has estimated the funds that could be available to meet tactical air needs after making several important assumptions. First, CBO estimated the direct cost of procuring and operating tactical air forces in fiscal year 1984, a year for which detailed decisions have already been made. This estimate excludes the facilities, operating costs, research and development costs, and other indirect costs that would increase the tactical air budget, but which cannot be estimated precisely. ^{6/} Then CBO assumed that this direct budget could increase by 5 percent a year in real terms in years beyond 1984; this is consistent with the percentage increase allowed by the Congress in last year's budget plan for the entire Department of Defense. Thus the projection assumes that the Congress retains last year's budgetary funding and that money is not reallocated from other parts of the defense budget to allow a larger increase for tactical aircraft. Under these assumptions, the money available for tactical forces would increase from \$12.7 billion of budget authority in fiscal year 1985 to \$18.6 billion by 1989 (see Table 3).

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6. Research, Development, Test, and Evaluation (RDT&E) costs were excluded in the tactical aircraft budget for this analysis. The reason for doing this was that CBO would only be able to capture those costs associated with existing aircraft--which are decreasing over the five-year period. Had these costs been included in the 5 percent real growth budget, it would provide increasing funds for development--while all options would include decreasing development funds. This could produce unrealistic savings as the Air Force plans development of an F-16F and an Advanced Tactical Fighter and it is more likely that costs in the development account during this decade will go up rather than down.

TABLE 3. COST OF VARIOUS TACTICAL AIR FORCE GROWTH PLANS, FISCAL YEARS 1985-1989 (In billions of dollars of budget authority, under Administration inflation assumptions)

Planned Growth	1985	1986	1987	1988	1989	Total 1985- 1989
5 Percent Real Growth	12.7	14.0	15.4	17.0	18.6	77.7
Administration Plans						
Current Readiness						
Spending <u>a/</u>	14.6	16.8	17.6	19.2	19.6	87.9
Administration						
Readiness						
Spending <u>b/</u>	14.7	17.1	18.0	19.7	20.2	89.8

SOURCE: CBO estimates from Fiscal Year 1984 Budget (5 percent real growth) and Fiscal Year 1985 Budget Request (Procurement) plus CBO estimates of operating and support costs.

NOTE: Numbers may not add to totals due to rounding.

- a. Projected by CBO based on readiness spending levels programmed in the 1984 defense budget.
- b. Projected by CBO assuming readiness spending increases equal to those planned by the Administration for the Department of Defense as a whole.

This 5 percent increase would not be sufficient, however, to pay for the Administration's planned growth in tactical aircraft. Indeed, the Administration's plan would exceed the amount available by \$10.2 billion over the five fiscal years 1985-1989 (see Table 3). This shortfall assumes the detailed procurement costs shown in the Administration's February 1984 budget. 7/

- 7. Procurement costs were taken from the February 1984 budget submission. The Air Force has indicated that the marginal costs of the derivative fighter that were submitted to Congress were F-16E costs. As the marginal costs for that plane were the higher than those

Moreover, the shortfall could be even larger. The preceding shortfall estimate assumed that the Administration would provide enough extra operating money from the operation and maintenance (O&M) appropriation to pay for additional aircraft and wings that would be needed to meet the Administration's plans. This estimate did not assume that additional funds would be provided to improve readiness of new and existing forces. Yet in recent years the Air Force has requested more money to improve readiness. The Administration only provides the Congress with information about its plans for increased spending on readiness, for the Department of Defense as a whole; it does not provide detailed information at the level of tactical force readiness. But CBO estimated the shortfall, assuming that the Administration would add funds to the operation and maintenance appropriation for tactical aircraft to improve readiness and do so at rates similar to its plans for the DoD as a whole. ^{8/} Under this "Administration readiness spending" assumption, the Air Force's tactical force budget would exceed a 5 percent budget for tactical air forces by a total of \$12.1 billion over the five fiscal years 1985-1989 (see Table 3).

The Congress could, of course, decide that the Air Force share of the defense budget, or the tactical aircraft share of the Air Force budget, should be greater than the amounts assumed by CBO. Such a decision might permit the Air Force to buy the planned forces and improved readiness. Indeed the two major strategic programs that compete with tactical aircraft for Air Force funds--MX and B-1--should be largely complete by 1987, if they continue on schedule. There may, however, be some cause for pessimism that MX or B-1 funds will be available for tactical aircraft in the

Footnote Continued

associated with the F-15E which was selected, the out-year dollars associated with derivative fighter procurement should be lower, although the funds in the May 1984 budget submission for this aircraft are the same as those in the February budget for fiscal year 1985. F-15 quantity for 1985 at least, in the May 1984 budget submission, was reduced and F-16 quantities for 1986 through 1989 were reduced. Although these actions will move costs toward 5 percent real growth, they are not enough to get there.

8. The Defense Resources Model (DRM), which was used to estimate operation and maintenance (O&M) expenses for the tactical forces, also estimates total O&M spending for the Department of Defense. Comparing spending levels between these totals, using Administration inflation rates and defense projections for O&M, shows defense O&M spending at considerably higher levels. The percentage difference between DRM and Administration plans was applied to O&M costs in the tactical air force budget.

1980s, since the MX and B-1 programs may be delayed. Since they clearly have higher priority under this Administration than tactical air forces, they would continue to compete with them effectively for Air Force funds through the 1980s if this occurred, at least within the Department of Defense. Additionally the Air Force has several developmental projects that could become competitors in the late 1980s. Among these are the new, small missile program for the strategic forces, the Stealth bomber, and large portions of the new Strategic Defense Initiative. Also, the C-17 transport aircraft, a high priority of the Air Force as well as the Army, is planned to enter production in 1988, the same time that tactical fighter procurement is expected to go over 300 aircraft per year.

Additionally an intrinsic aspect of tactical aircraft procurement makes it an attractive target for defense budget cutters. It is possible to cut aircraft procurement by slowing but not cancelling programs, hence avoiding the difficult step of terminating a project. And, because of the expense of tactical aircraft, such slowdowns yield large savings in the near term.

For these reasons the assumption of 5 percent real growth in the tactical air force budget might not be overly pessimistic. Indeed it might be even more realistic to assume 3 percent real growth. Despite its long-term plan for 5 percent real growth in the defense budget as a whole, the Congress only appropriated enough money in fiscal year 1984 to allow for 3 percent real growth. If the tactical air forces were to receive funds for only 3 percent annual real growth in the 1985-1989 period, the shortfall would be substantially worse, about \$14.6 billion over the five years under current readiness spending and about \$16.6 billion under the Administration's readiness spending.

CHAPTER III. ALTERNATIVE APPROACHES TO TACTICAL AIR FORCE EXPANSION AND MODERNIZATION

As has been shown, the Administration's plans for the Air Force tactical forces may well exceed likely future funding levels. Thus Congress may wish to consider changes to the plans that would reduce their costs to levels more consistent with fiscal reality. This chapter considers several alternative changes to the plans that would reduce their costs, including two that cancel procurement programs.

Taking action now to change long-term plans, even cancelling programs in anticipation of funding problems, would be consistent with a study released last year, the Affordable Acquisition Approach. In that study, an Air Force panel said that the Air Force now takes longer to complete its procurement plans than it did in the preceding decades and that, as a result, they cost more. A major contributing factor, according to the study, is that today's plans assume higher increases in funding than the Air Force is likely to obtain. When funding levels are lower than expected, the Air Force delays completion of their programs and this causes a rise in the unit costs of systems procured. The study argues that, while delaying procurement programs remains an option, the Air Force should consider program cancellation as well.

POSSIBLE CHANGES IN KEY GOALS

The Administration plans discussed in Chapter II embody three key goals:

- o Build up the force structure;
- o Retire old F-4 aircraft; and
- o Modernize the force.

Under tighter budgets, the Administration may be forced to choose among these three goals. Possible changes in each are discussed below.

